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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,004	05/11/2006	Douglas R. McPherson	AJE-2,209.1US	4510
3624 7590 08/06/2008 VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER HUG, ERIC J	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 08/06/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/579,004

**Applicant(s)**

MCPHERSON, DOUGLAS R.

**Examiner**

Eric Hug

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-22 and 25-33 is/are rejected.  
7) ☒ Claim(s) 23 and 24 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 11 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 5/11/2006, 7/24/2007  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claim 24 is objected to because of the following:

The claim, which depends on claim 22, recites "the projection on the CD support". There is no such recitation in claim 22, however this feature is recited in claim 23. Claim 24 should depend on claim 23.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 11-18, 20-22, 27, and 29-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Bartelmuss et al (US 2004/0074623).

Bartelmuss discloses a vacuum dewatering apparatus for a paper-making machine which supports a moving wire and wipes off water emerging from a pulp or paper web on the wire and passing through the wire. See Figure 1 which shows the apparatus as intended to be mounted on a suction box. The apparatus comprises a frame 1 formed with

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a plurality of load bearing strips 12 and having a plurality of supporting/wiping elements fixed to the strips. The elements are made of ceramic material. The upper surfaces of the elements come into direct contact with the wire. The elements are located at intervals from one another in the direction of movement of the wire and in the direction transverse to the movement of the wire. The elements are arranged in a plurality of rows that are aligned transversely to the wire and extending over the entire width of the wire. The elements are also arranged to form interspaces in between through which water can pass. The interspaces also allow for vacuum to be applied in order to increase the dewatering effect on the wire. Wiping elements in successive rows are arranged to be offset transversely with respect to one another. See paragraph [0024]. The wiping elements may have different shapes as shown in Figure 4. These provides various flat or curved surfaces to contact the wire. The load bearing strips 12 each have a groove along the length thereof for arranging the wiping elements as seen in Figure 1. The elements may be fixed to the load bearing strips by mechanical means and/or be adhesively bonded to the strips. The elements are formed on the underside with a blind bore or hole 22 and a threaded sleeve 23 for affixing the elements to the load bearing strip 12. See Figure 5 and paragraph [0029].

The apparatus of Bartelmuss described above reads on the claimed vacuum dewatering box cover of claim 1 and vacuum dewatering box of claim 15, wherein the ceramic wiping elements are equivalently the claimed blocks having a wear surface, and the dewatering spaces created by the arrangement of elements in the transverse direction are equivalently the claimed slots oriented in the cross-direction. Regarding claim 2, the load bearing strips are equivalently the claimed CD extending support. Regarding

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claims 3, 4, 18, 20, and 22, each element is a wear resistant element (ceramic) and is mounted in a groove of a cross-directional load bearing strip. Regarding claims 11 and 33, the apparatus is a suction box. Regarding claims 12-14 and 30-32, the elements are ceramic, therefore the wear surface is ceramic. Whether the element is made entirely of ceramic or only comprises a ceramic coating is deemed to be encompassed. Regarding claims 16-17, the elements are attached to the supports mechanically and/or by adhesive as described above. Regarding claim 25, and 26, as described in paragraphs [0011] and [0024] and as shown in the figures, the elements are located in the claimed offset positions. Regarding claims 21 and 29, zig-zag/herringbone appearances for the dewatering spaces are deemed to be present in Figure 1 or deemed capable of being obtained. Regarding claim 27, CD oriented dewatering spaces (slots) are clearly seen in the Figures.

Claims 1, 5-10, 15, 25-26, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Feiler (US 5,858,175).

Feiler discloses a suction box for a porous belt carrying a fiber web in a paper machine. The suction box may be connected to a vacuum source which applies suction to the belt and to remove water from the web. The suction box comprises a plurality of support strips which extend transverse to the travel direction of the belt. Each adjacent pair of strips defines a suction slot therebetween. At one or both lateral sides of the slots are fillers which limit each slot and establishes the length of each slot across the belt. The positions of the fillers are adjustable in the transverse direction. The length of the suction slot between each pair of the support strips 20 is determined by the positions of

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the fillers. Figure 2 shows support strips 20 and fillers 31, 32, 33 fitted between the support strips.

The apparatus of Feiler described above reads on the claimed vacuum dewatering box cover of claim 1 and vacuum dewatering box of claim 15, wherein the fillers are equivalently the claimed blocks having a wear surface, and the arrangement of fillers in the transverse direction between the support strips form the claimed slots oriented in the cross-direction. Regarding the other claims, the arrangement of fillers and support strips reads on each of the claimed arrangements of blocks and CD supports when the fillers are inserted into opposite ends of the slots.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartelmuss in view of Poeschl (US 3,928,125). Bartelmuss has been applied to claims 15 and 18 above, pertinent to claim 19.

In Bartelmuss above, the wiping elements are made of ceramic. Bartelmuss does not disclose the material of the load bearing strips which support the wiping elements.

Poeschl discloses a dewatering apparatus comprising a plurality of spacedly parallel elongated contact units in engagement with a moving wire. The contact elements consist of sections of hard ceramic at the contacting surface. Each contact unit is

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supported by an elongated channel member of extruded aluminum alloy or stainless steel.

These materials are inexpensive, chemically inert and corrosive resistant materials.

Regarding claim 19, it would have been obvious to one skilled in the art to construct the load bearing strips of Bartelmuss from stainless steel for the reasons taught by Poeschl.

***Allowable Subject Matter***

Claims 23 and 24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The claims are allowable for providing the CD supports and blocks with complementary grooves and projections for positively engaging the blocks by the CD supports.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is (571) 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Hug/  
Primary Examiner, Art Unit 1791